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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Turkey 2012 - 2015
Postgraduate, State University of Nem York-Maritime College, United States Of America 2007 - 2008
Undergraduate, Istanbul Technical University, Turkey 2001 - 2005

Research Areas

Marine Sciences and Technology

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, 2018 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Prediction of human-machine interface (HMI) operational errors for maritime autonomous surface ships (MASS)**
Liu J., AYDIN M., Akyüz E., Arslan Ö., Uflaz E., Kurt R. E., Turan O.
JOURNAL OF MARINE SCIENCE AND TECHNOLOGY, vol.27, no.1, pp.293-306, 2022 (SCI-Expanded)

II. **A fuzzy best-worst method (BWM) to assess the potential environmental impacts of the process of ship recycling**
Söner Ö., Celik E., Akyüz E.
MARITIME POLICY & MANAGEMENT, vol.49, pp.396-409, 2022 (SSCI)

III. **Application of data-mining techniques to predict and rank maritime non-conformities in tanker shipping companies using accident inspection reports**
Navas de Maya B., Arslan Ö., Akyüz E., Kurt R. E., Turan O.
SHIPS AND OFFSHORE STRUCTURES, vol.17, no.3, pp.687-694, 2022 (SCI-Expanded)

IV. **Validation of risk analysis for ship collision in narrow waters by using fuzzy Bayesian networks approach**
AYDIN M., Akyüz E., Turan O., Arslan Ö.

OCEAN ENGINEERING, vol.231, 2021 (SCI-Expanded)

V. **An interval type-2 fuzzy SLIM approach to predict human error in maritime transportation**
Erdem P., Akyüz E.
OCEAN ENGINEERING, vol.232, 2021 (SCI-Expanded)

VI. **Analyzing human error contributions to maritime environmental risk in oil/chemical tanker ship**
AYDIN M., Camliyurt G., Akyüz E., Arslan Ö.
HUMAN AND ECOLOGICAL RISK ASSESSMENT, vol.27, pp.1838-1859, 2021 (SCI-Expanded)

VII. **Application of fuzzy bow-tie risk analysis to maritime transportation: The case of ship collision during the STS operation**
Arıcı S. S., Akyüz E., Arslan Ö.
OCEAN ENGINEERING, vol.217, 2020 (SCI-Expanded)

VIII. **Application of fuzzy logic to fault tree and event tree analysis of the risk for cargo liquefaction on board ship**
Akyüz E., Arslan Ö., Turan O.
APPLIED OCEAN RESEARCH, vol.101, 2020 (SCI-Expanded)

IX. **Analysis of performance influence factors on shipboard drills to improve ship emergency preparedness at sea**
Tac B. O., Akyüz E., Çelik M.
INTERNATIONAL JOURNAL OF SHIPPING AND TRANSPORT LOGISTICS, vol.12, pp.92-116, 2020 (SSCI)

X. **An interval type-2 fuzzy QUALIFLEX approach to measure performance effectiveness of ballast water treatment (BWT) system on-board ship**
DEMİREL H., Akyüz E., ÇELİK E., ALARÇİN F.
SHIPS AND OFFSHORE STRUCTURES, vol.14, no.7, pp.675-683, 2019 (SCI-Expanded)

XI. **Application of human reliability analysis to repair & maintenance operations on-board ships: The case of HFO purifier overhauling**
Kandemir Ç., Çelik M., Akyüz E., Aydin O.
APPLIED OCEAN RESEARCH, vol.88, pp.317-325, 2019 (SCI-Expanded)

XII. **Statistical modelling of ship operational performance monitoring problem**
Söner Ö., Akyüz E., Çelik M.
JOURNAL OF MARINE SCIENCE AND TECHNOLOGY, vol.24, no.2, pp.543-552, 2019 (SCI-Expanded)

XIII. **Application of Fuzzy Fault Tree Analysis (FFTA) to maritime industry: A risk analysing of ship mooring operation**
Kuzu A. C., Akyüz E., Arslan Ö.
OCEAN ENGINEERING, vol.179, pp.128-134, 2019 (SCI-Expanded)

XIV. **Prediction of human error probabilities in a critical marine engineering operation on-board chemical tanker ship: The case of ship bunkering**
Akyüz E., Çelik M., Akgun I., Çiçek K.
SAFETY SCIENCE, vol.110, pp.102-109, 2018 (SCI-Expanded)

XV. **A quantitative risk analysis by using interval type-2 fuzzy FMEA approach: the case of oil spill**
Akyüz E., ÇELİK E.
MARITIME POLICY & MANAGEMENT, vol.45, no.8, pp.979-994, 2018 (SSCI)

XVI. **Use of tree based methods in ship performance monitoring under operating conditions**
Söner Ö., Akyüz E., Çelik M.
OCEAN ENGINEERING, vol.166, pp.302-310, 2018 (SCI-Expanded)

XVII. **An interval type-2 fuzzy AHP and TOPSIS methods for decision-making problems in maritime transportation engineering: The case of ship loader**
ÇELİK E., Akyüz E.
OCEAN ENGINEERING, vol.155, pp.371-381, 2018 (SCI-Expanded)

XVIII. **APPLICATIONS OF MARPOL RELATED WITH OIL SPILL IN TURKEY**
Akyüz E., Arslan Ö., İNCAZ S.
OIL SPILL ALONG THE TURKISH STRAITS SEA AREA; ACCIDENTS, ENVIRONMENTAL POLLUTION, SOCIO-

ECONOMIC IMPACTS AND PROTECTION, vol.47, pp.356-362, 2018 (SCI-Expanded)

XIX. **INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION OF THE SEA BY OIL (OILPOL), 1954 AND ITS SITUATION RELATED WITH TURKEY**
Akyüz E., Çelik M., Söner Ö.
OIL SPILL ALONG THE TURKISH STRAITS SEA AREA; ACCIDENTS, ENVIRONMENTAL POLLUTION, SOCIO-ECONOMIC IMPACTS AND PROTECTION, vol.47, pp.334-341, 2018 (SCI-Expanded)

Articles Published in Other Journals

I. **A Comparative Research of Machine Learning Impact to Future of Maritime Transportation**
AKYÜZ E., ÇİÇEK K., ÇELİK M.
Procedia Computer Science, vol.158, pp.275-280, 2019 (Scopus)

II. **Gemi Operasyonlarında Acil Durum Yönetimi Etkinliğini Değerlendirme ve İyileştirme Üzerine Uygulamalı Bir Araştırma Yaklaşımı Önerisi**
ÖZTÜRK TAÇ B., AKYÜZ E., ÇELİK M.
Journal of Transportation and Logistics, vol.3, pp.93-108, 2018 (Peer-Reviewed Journal)

Books & Book Chapters

I. **International convention for the prevention of pollution of the sea by oil (OILPOL), 1954 and its situation related with Turkey**
AKYÜZ E., ÇELİK M., SÖNER Ö.
in: Oil spill along the Turkish straits sea area: accidents, environmental pollution, Ünlü, S., Alpar, B., Öztürk, B., Editor, Turkish Marine Research Foundation, pp.334-341, 2018

II. **Maritime Environmental Disaster ManagementUsing Intelligent Techniques.**
AKYÜZ E., İLBAHAR E., ÇEBİ S., ÇELİK M.
in: Intelligence Systemsin EnvironmentalManagement Theoryand Applications, Kahraman, C., Ucal, Sarı, I. , Editor, Springer, pp.135-159, 2016

Refereed Congress / Symposium Publications in Proceedings

I. **Future Skills Requirements Analysis in Maritime Industry**
ÇİÇEK K., AKYÜZ E., ÇELİK M.
3rd World Conference on Technology, Innovation and Entrepreneurship (WOCTINE), İstanbul, Turkey, 21 - 23 June 2019, pp.270-274

II. **A Comparative Research of Machine Learning Impact to Future of Maritime Transportation**
AKYÜZ E., ÇİÇEK K., ÇELİK M.
3rd World Conference on Technology, Innovation and Entrepreneurship (WOCTINE), İstanbul, Turkey, 21 - 23 June 2019, pp.275-280

III. **Using Weka Data-Mining Analysis To Determine Ship EmergencyPreparedness Level In Case Of Fire**
Ozturk Tac B., ÇELİK M., AKYÜZ E.
Future Learning 2018 (7th International Conference on "Innovations in Learning for the Future": Digital Transformation inEducation), İstanbul, Turkey, 11 September 2019 - 24 September 2018

IV. **Using WEKA data-mining analysis to determine ship emergency preperedness in case of fire**
ÖZTÜRK TAÇ B., ÇELİK M., AKYÜZ E.
7th International Conference on Innovations in Learning for the Future 2018: Digital Transformation in Education, 11 - 14 September 2018

V. **Developing a maritime course on human reliability assessment in shipboard operations via problem-**

based gaming practices.
AKYÜZ E., ÇELİK M., ÇİÇEK K.
International Congresses on Education 2018, 28 June - 01 July 2018

VI. **A continuing professional development program on designated person ashore (DPA) position in ship management companies.**
AKYÜZ E., ÇİÇEK K., ÇELİK M.
International Congresses on Education 2018, 28 June - 01 July 2018

VII. **Investigation the availability of large-scale data sets in existing ships to conduct performance analysis under operational conditions, April 23-25, 2018, Istanbul, Turkey.**
SÖNER Ö., AKYÜZ E., ÇELİK M.
3rd International symposium on naval architecture and maritime (INT-NAM 2018), 23 - 25 April 2018

VIII. **Investigation the Availability of Large-Scale Data Sets in Existing Ships to Conduct Performance Analysis Under Operational Conditions.**
SÖNER Ö., AKYÜZ E., ÇELİK M.
INT-NAM 2018 (3rd International Naval Architectureand Maritime Symposium), İstanbul, Turkey, 24 - 25 April 2018

IX. **Gemi İşletmeciliğinde Acil Durum Yönetimi Etkinliğini Değerlendirme Ve İyileştirme Üzerine Uygulamalı Bir Araştırma Yaklaşımı Önerisi**
TAC B., AKYÜZ E., ÇELİK M.
Ulaştırma ve Lojistik Ulusal Kongresi, Turkey, 26 - 27 October 2017, pp.31

X. **A Fuzzy SLIM Based Quantitative Risk Analysis in Maritime Transportation Engineering**
ÇELİK E., AKYÜZ E.
The 5th International Fuzzy System Symposium (FUZZYSS'17), Ankara, Turkey, 14 - 15 October 2017, pp.29

XI. **An artificial neural network (ANN) model to predict fresh water consumption on-board ship in maritime transportation.**
ÇELİK E., AKYÜZ E.
12th International Silk Road Scientific Conference, Georgia, 19 - 20 May 2017

XII. **Reviewing of seafarers' rights by adopting cognitive mapping approach under Maritime Labour Convention.**
AKYÜZ E.
12th International Silk Road Scientific Conference, Georgia, 19 - 20 May 2017

XIII. **User interfaces design to introduce a risk based approach in maritime transportation**
Orhan C., AKYÜZ E.
11th Silk Road International Conference Innovationsin Business, Education and Science, Tbilisi, Georgia, 20 May - 21 September 2016

XIV. **An analytic assessment of ship energy efficiency in maritime transportation engineering**
AKYÜZ E.
ICAT 16: International Conference on Advanced Technology & Sciences, Konya, Turkey, 1 - 03 September 2016, pp.258-265

XV. **Analytic hierarchy process extended with internal type 2 fuzzy sets to assess potential environmental impacts of ship recycling process**
ÇELİK E., AKYÜZ E.
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016

XVI. **An integrated approach for shiploader selection during dry bulk cargo terminal installation in maritime transportation engineering**
AKYÜZ E., ÇELİK E.
International Conference on Modern Trends in Engineering & Technology (MTET-16), İstanbul, Turkey, 18 - 19 April 2016, pp.129-133

XVII. **Fuzzy based human reliability assessment upon cargo discharging operation on board chemical tanker ship**

AKYÜZ E., ÇELİK E.
The 4th International Fuzzy Systems Symposium (FUZZYSS'15), İstanbul, Turkey, 5 - 06 November 2015, pp.178-184

XVIII. **Risk Assessment of Hydraulic Hatch Covers On Board Dry Bulk Cargo Ships by Using FMEA Technique**
AKYÜZ E.
The 5th Multidisciplinary Academic Conference in Prague 2015 (The 5thMAC in Prague 2015), Prag, Czech Republic, 16 - 17 October 2015, pp.1-9

Metrics

Publication: 81
Citation (WoS): 1200
Citation (Scopus): 1250
H-Index (WoS): 23
H-Index (Scopus): 25

Non Academic Experience

Bulk Atlantik Inc.
Transatlantik Denizcilik
Metropole Denizcilik
SBB Shipping
Arkas Denizcilik
ZIM Line
İnce Denizcilik